Evaluation of Satisfaction with Life and Quality of Life of Elderly People with Trigeminal Neuralgia

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ABSTRACT

Introduction: The aim of this study was to evaluate satisfaction with life and quality of life of the elderly people with trigeminal neuralgia. Trigeminal neuralgia has been associated with poorer psychiatric and psychosocial health status in geriatric populations. Materials and methods: This study included a total of 64 subjects, 32 patients diagnosed with trigeminal neuralgia and 32 volunteers who formed the healthy control group. Sociodemographic questionnaire was used to determine sociodemographic characteristics of the subjects, Satisfaction with Life Scale (SWLS) was used to determine life satisfaction and Rolls Royce Model Quality of Life Scale was used to evaluate life quality. Results: No statistically significant difference was found between the Trigeminal Neuralgia Group and the Healthy Control Group according to sociodemographic data (p>0.05). The level of life satisfaction and quality of life of the elderly persons with trigeminal neuralgia were found to be statistically significantly lower (p<0.05, p<0.001). Conclusion: Trigeminal neuralgia and chronic pain accompanying this disease adversely affect satisfaction with life, quality of life, and psychological and psychosocial status of elderly people and this may have adverse consequences over recovery process.

Keywords: Trigeminal neuralgia, pain, quality of life, elderly

1. INTRODUCTION

Trigeminal neuralgia (TN), is a paroxysmal, often unilateral but rarely bilateral chronic neuropathic disease whose pathophysiology has not be exactly determined; it usually affects trigeminal nerve areas [1]. Etiology of TN is not known exactly. One, two or all three branches of the trigeminal nerve may be involved. Involvement is most commonly seen at maxillary and mandibular branches, but ophthalmic branch is also involved at a less frequent rate. The disease may cause pain at one or more of face, ears, eyes, lips, nose, scalp, forehead, teeth, and jaws. Estimated incidence of the disease in the society is 1 in 15000, but these values are thought to be higher due to difficulties in diagnosing the disease and patients who are not recorded [2,3,4]. TN usually appears at or over 50 years of age. It is seen more commonly in females than in males. To describe the pain patients may tell a focus on their faces producing pain. This focus is sensitive to touch and even to mild current
of air and may initiate pain episodes. These cutaneous or mucosal trigger points which are characteristics of TN are called as "trigger zone" and may even cause daily activities such as eating, talking, or teeth brushing unbearable. In more advanced cases, loud noises, neck scarf and even the movement of hair in the wind may become unbearable for the patients [5]. Although the pain is sudden and last from a few seconds to 1-2 minutes, its sudden onset, sharpness and severity adversely affect individuals physiologically and psychologically. Pain attacks may sometimes repeat hundreds of time in a day. This disease which is characterized by severe pain adversely affects routine daily life of people and decreases quality of life. Remissions are characteristic in trigeminal neuralgia. Pain may be absent for a few weeks or months but duration of these periods gradually decreases and recurrences tend to be more severe [6,7].

Frequent experience of chronic pain in patients with trigeminal neuralgia adversely affect their physical, psychological, and social wellbeing. Because chronic diseases are more common in the elderly, a higher level of adverse consequences of such diseases on lives of elderly people compared with younger ones is likely.8 Trigeminal neuralgia usually starts after age of 50 and adversely affects social, psychological and physical lives of people [8].

The purpose of this study was to evaluate effects of chronic neuropathic pain on quality of life and satisfaction with life of middle aged and elderly patient with trigeminal neuralgia.

2. METHODS

This was carried out in accordance with the guidelines of Helsinki Human Rights Declaration. The study was initiated after approval from Ethics Committee. The subjects were included after detailed information was given about the study and consent forms were signed. This study included 32 patients presented to Oral and Maxillofacial Surgery Department of Karabuk University with severe and sudden unilateral pain with electric-shock like quality lasting for 1-2 minutes which occurs at certain trigger points in facial area during activities such as tooth brushing, shaving, and eating. Trigeminal Neuralgia was diagnosed in these patients after detailed, clinical evaluations, computerized axial tomography, and magnetic resonance imaging taking into account differential diagnostic criteria of International Headache Society for TN [9]. The healthy control group included 32 persons at or over 50 years of age.

To collect data sociodemographic questionnaire was used to determine sociodemographic characteristics of the subjects, Satisfaction with Life Scale (SWLS) was used to determine life satisfaction and Rolls Royce Model Quality of Life Scale was used to evaluate life quality. Rolls Royce Model Quality of Life Scale includes 49 questions and 8 subscales that evaluates general wellbeing, physical symptoms and activity, sleep disorder, appetite, sexual function, medical interaction, cognitive functions, social relations and work performance. Özyılkan et al demonstrated validity and reliability of the test formed the final form including 42 questions which were used in our study [10]. Positive scoring is made so that health-related quality of life increases as the score obtained from the scale increase. Satisfaction with Life Scale (SWLS) is a Likert type measurement tool that measures life satisfaction.

For analysis of the data percentage, variable distribution in the groups studied was tested using the Shapiro–Wilk test for normality. Statistical characteristics of continuous variables were presented as arithmetical means (M) and SDs. Differences between two groups were tested using the parametric Student’s t test. The independent-samples t test and Chi-square were used to compare the demographic information. The strength and direction of linear correlations between pairs of continuous variables were analyzed using the Pearson’s coefficient of correlation.

3. RESULTS

The mean age of the patients with Trigeminal Neuralgia included in the study was 66.5 ± 9.56 and the mean age of the individuals who constituted the healthy control group was 61.4 ± 10.2. There was no statistically significant difference between the groups in terms of age, gender, educational status, marital status, and systemic illnesses (p>0.05) (Table 1).

Comparison of life satisfaction levels between healthy individuals constituting the control group and the trigeminal neuralgia group demonstrated lower satisfaction level in the Trigeminal Neuralgia group (p<0.001) (Table 2).
Table 1: Comparison of Sociodemographic Characteristics of Groups

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Trigeminal Neuralgia Group</th>
<th>Healthy Control Group</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>50-60</td>
<td>11</td>
<td>34.4</td>
<td>9</td>
</tr>
<tr>
<td>60-70</td>
<td>13</td>
<td>40.6</td>
<td>18</td>
</tr>
<tr>
<td>70 or older</td>
<td>8</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>59.4</td>
<td>17</td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>40.6</td>
<td>15</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary-middle school graduate</td>
<td>6</td>
<td>18.8</td>
<td>8</td>
</tr>
<tr>
<td>High school graduate</td>
<td>16</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>University graduate</td>
<td>10</td>
<td>31.2</td>
<td>7</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>28</td>
<td>87.5</td>
<td>23</td>
</tr>
<tr>
<td>Single</td>
<td>4</td>
<td>12.5</td>
<td>9</td>
</tr>
<tr>
<td>Systemic Disease</td>
<td>21</td>
<td>65.6</td>
<td>15</td>
</tr>
</tbody>
</table>

Student t test, Chi-square test

Table 2: Satisfaction with life scale of control group with trigeminal neuralgia patients

<table>
<thead>
<tr>
<th>Satisfaction with Life Scale (SWLS)</th>
<th>Trigeminal neuralgia group</th>
<th>Healthy control group</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.16±7.09</td>
<td>24.84±6.42</td>
<td></td>
<td>0.000**</td>
</tr>
</tbody>
</table>

Student t test, p<0.05, p<0.001**

Evaluation of life satisfaction according to sociodemographic characteristics revealed that there were significant relations between age and life satisfaction and between presence of systemic illnesses and life satisfaction so that satisfaction with life decreased as age increased and in the presence of systemic diseases (p<0.05, p<0.001) (Table 3). The quality of life scores of the patients with trigeminal neuralgia were found to be statistically significantly lower than the control group (p<0.001) (Table 4). Quality of life was lower in the presence of the disease. Significant differences were found between the groups in terms of general well-being, appetite, cognitive functions, medical interactions, social relations, and job performance subscales (p<0.05). Differences between groups in physical symptoms and activity and sleep disorders subscales were very significant (p<0.001) (Table 4).
4. DISCUSSION

The presence of chronic pain is a frequently observed condition in elderly people that affects the quality of life, life satisfaction, sleep quality, social and family relationships of the patient in a very negative way [11]. In our study, we evaluated the quality of life and life satisfaction level of patients with chronic neuropathic pain due to trigeminal neuralgia. Chronic pain, neuropathic pain and related disorders are a global problem among elderly individuals. In a study of older adults in the United States (n = 7601), 52.8% of individuals reported having had pain that adversely affected their lives in the previous month [12]. Similar results have been found in studies conducted in Europe, Asia and Australia [13,14,15]. In our study, in parallel with these results; It has been found that individuals with chronic neuropathic pain due to TN have lower quality of life and life satisfaction than the healthy control group. Trigeminal neuralgia is a neuropathic disorder that can cause a serious decline in life satisfaction and in life quality. This psychological and psychosocial adversity in patients with trigeminal neuralgia also affects the treatment of their disease [16]. In our study, in parallel with this view, life satisfaction and quality of life of

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patients with trigeminal neuralgia were found to be statistically lower than those of healthy group and presence of psychological fatigue and decrease in joy of life and determination were detected in these patients.

In addition to the severity of the experienced pain, localization of the pain also affects activities of daily life and quality of life closely [17]. Tavsanli et al. reported that individuals with pain in the head and neck region had lower quality of life values than those who had pain in other regions [18]. In our study, the quality of life and life satisfaction of elderly individuals with neuropathic pain in the head and neck region were assessed and found to be lower than the control group.

Pain affects the physical, psychological, social and economic areas of the individual's life negatively and reduces the quality of life [18,19]. Physical, psychological and social functions of the individuals are affected more with increasing intensity and severity of the experienced pain [19]. This finding is supported by the low quality of life and life satisfaction scores of elderly individuals with trigeminal neuralgia who experience pain. Jakobsson et al. found that elderly individuals suffering from pain had difficulties in carrying out their activities of daily life and that the quality of life of these individuals decreased [20]. In our study, painful individuals were found to have more difficulties and lower quality of life in terms of physical symptoms and activities, social relations and work performance, and cognitive function than healthy individuals.

Devor et al. reported in their studies that the sleep quality of Trigeminal neuralgia patients was low, and that most patients had a painful sleep-wake [21]. In our study, as a result, parallel to this finding, sleep disorders were more frequent in the patients with trigeminal neuralgia than in the control group.

5. CONCLUSION

Chronic, neuropathic pain experienced by elderly patients with trigeminal neuralgia has very serious negative effects on life satisfaction levels and quality of life of the patients. An adequate pain management should be performed by evaluating pain with appropriate diagnostic tools for elderly patients with trigeminal neuralgia. With effective management of pain elderly people can perform activities of daily life and participate in social life so that their quality of life and satisfaction with life may be enhanced.

REFERENCES


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